

DEC 05 2005

IN THE U.S. PATENT OFFICE
Ser. No. 10/674,678

Doc. No. WW-11D-1

Applicant: DEICHMANN ET AL

EXAMINER: HOGAN, JAMES S.

FILED: 09/29/2003

ART UNIT: 3752

RESPONSIVE TO THE OFFICE ACTION MAILED 11/18/05

Claims 1 and 5 Once Amended. Claims 2-4, 7 and 8 Original. Claims 9-36
Canceled.

CLAIM 1. Once Amended. An improved laminar nozzle assembly comprising:
a fountain enclosure including a water reservoir;
pump means for pumping liquid to a laminar flow nozzle;
conduit means to conduct liquid from said pump to said laminar flow nozzle;
a diffuser located within said assembly;
said diffuser comprising a porous filter formed into a hollow hemisphere having a
generally convex surface and a generally concave surface;
said generally concave surface having a center spaced from said generally concave surface;
an exit orifice spaced from said generally concave surface and located generally at said
center, whereby as said fluid flows through said hollow
hemispherical diffuser it has its Reynold's Number significantly reduced, and any
turbulences on said convex surface tend to be converted to a very great number of micro-
turbulences which tend to be self canceling and substantially all water flowing from the
diffuser to the exit orifice has substantially the same distance to travel from substantially
all directions, and the fluid exiting said orifice is highly laminar.

Claim 2. Original. An improved nozzle assembly according to claim 1 wherein said diffuser
is made of polyester fiber air filter material.

-1-

Claim 3. Original An improved nozzle assembly according to claim 3 wherein said material is about 1/2 inch to 1 inch thick.

Claim 4. Original An improved nozzle assembly according to claim 3 wherein material has been heat formed over a hemispherical mandrel.

CLAIM 5. Once Amended. An improved mimature laminar nozzle fountain assembly comprising: a fountain enclosure including a water reservoir;
a generally cylindrical nozzle body having an exit orifice, a continuous wall and an end opposite from said exit orifice;
an inlet port for causing fluid to enter the nozzle assembly radially though said wall toward said end;
a diffuser located within said assembly;
said diffuser comprising a porous filter formed into a hollow hemisphere having a convex surface and a concave surface having a center;
an exit orifice located generally at said center;
a blade located on the inside of said wall directly in front of said inlet port, whereby water entering through said inlet port is forced to flow in a generally circular direction flow, whereby said circular flow will tend to distribute water flow and turbulence evenly whereby as said fluid flows through said hollow hemispherical diffuser it has its Reynold's Number significantly reduced, and turbulences on said convex side of said diffuser tend to be converted to a large number of micro-turbulences which tend to be self canceling and substantially all water flowing from said diffuser to the exit orifice has substantially the same distance to travel from substantially all directions, and the fluid exiting said orifice is highly laminar[.]; said mimature laminar ornamental fountain being sized to be set and displayed on a table top and whereby said highly laminar stream emanating from said laminar nozzle forms a graceful arch and then falls back into said reservoir.

Claim 6. Original An improved nozzle assembly according to claim 5 wherein said diffuser is made of polyester fiber air filter material.

-2-

Claim 7.Original An improved nozzle assembly according to claim 6 wherein material has been heat formed over a hemispherical mandrel.

Claim 8.Original An improved nozzle assembly according to claim 8 wherein said material is about 1/2 inch to 1 inch thick.

Please cancel claims 9-36 without prejudice to their refiling under 35 USC 121.

-3-

CERTIFICATE OF MAILING

It is certified that this Amendment RESPONSIVE TO THE OFFICE
ACTION MAILED 11/18/05 has been faxed this 5th day of December,
2005 to the USPTO at 1-571-273-8300.


Henry W. Cummings